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NOTICE OF ALLOWANCE AND FEE(S) DUE

25944 7590 07/23/2004
OLIFF & BERRIDGE, PLC
P.O. BOX 9928
ALEXANDRIA, VA 22320

EXAMINER

PATEL, DHIRUBHAI R

ART UNIT

PAPER NUMBER

2831

DATE MAILED: 07/23/2004

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,756	10/29/2003	Takahiro Onizuka	117480	5765

TITLE OF INVENTION: CASING UNIT FOR CIRCUIT ASSEMBLY AND METHOD FOR PRODUCING THE CIRCUIT ASSEMBLY

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1330	\$300	\$1630	10/25/2004

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail**

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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

25944

7590

07/23/2004

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Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (703) 746-4000, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

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nonprovisional	NO	\$1330	\$300	\$1630	10/25/2004

EXAMINER	ART UNIT	CLASS-SUBCLASS
PATEL, DHIRUBHAI R	2831	174-050000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent); ☐ individual ☐ corporation or other private group entity ☐ government

4a. The following fee(s) are enclosed:

- ☐ Issue Fee _____
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s):

- ☐ A check in the amount of the fee(s) is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is not claiming SMALL ENTITY status. See, e.g., 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

(Authorized Signature)

(Date)

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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25944	7590	07/23/2004	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			PATEL, DHIRUBHAI R	
			ART UNIT	PAPER NUMBER
			2831	

DATE MAILED: 07/23/2004

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

Notice of Allowability

Application No.

10/694,756

Applicant(s)

ONIZUKA ET AL.

Examiner

Art Unit

DHIRU R PATEL

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/29/03 and 6/29/04.
2. ☒ The allowed claim(s) is/are 1-11.
3. ☒ The drawings filed on 29 October 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 0604
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 0604
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Dhiru R Patel
DHIRU R PATEL
Primary Examiner
Art Unit: 2831

6/30/04

Art Unit: 2831

Part III DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this Examiner's Amendment was given in a telephone interview with Gerhard Thielman on 6/29/04.

2. The application has been amended as follows:

In the Claims:

Claim 5 (currently amended): A method for producing [a] said casing unit wherein [a] said power circuit section is adhered to [a] said circuit arrangement surface on [a] said heat radiation member to form [a] said circuit assembly and [a] said casing body is mounted on said heat radiation member, comprising the steps of:

forming [a] said casing unit according to Claim 1 by filling a heated molten synthetic resin into a mold; and removing [a] said shape retention member from said casing unit after cooling said casing unit.

Claim 6 (currently amended): A method for producing [a] said casing unit wherein [a] said power circuit section is adhered to [a] said circuit arrangement surface on [a] said heat radiation member to form [a] said circuit assembly and [a] said casing body is mounted on

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said heat radiation member, comprising the steps of : forming [a] said casing unit according to Claim 2 by filling a heated molten synthetic resin into a mold; and removing [a] said shape retention member from said casing unit after cooling said casing unit.

Claim 7 (currently amended): A method for producing [a] said casing unit wherein [a] said power circuit section is adhered to [a] said circuit arrangement surface on [a] said heat radiation member to form [a] said circuit assembly and [a] said casing body is mounted on said heat radiation member, comprising the steps of:

forming [a] said casing unit according to Claim 3 by filling a heated molten synthetic resin into a mold; and removing [a] said shape retention member from said casing unit after cooling said casing unit.

Claim 8 (currently amended): A method for producing [a] said circuit assembly wherein [a] said power circuit section having [a] said power circuit is adhered to [a] said heat radiation member and [a] said synthetic resin casing body is mounted on said heat radiation member to protect said power circuit section from the outside, comprising the steps of: producing said power circuit section, said heat radiation member, and [a] said casing unit according to Claim 1, respectively; and adhering said power circuit section to said heat radiation member and adhering said casing unit to said heat radiation member; in the first step of producing said power circuit section, forming said casing unit including said shape retention member by filling a heated molten synthetic resin into a mold, and removing said shape retention member from said casing unit after cooling said casing unit and before finishing the second step of adhering; in the second step of adhering, pressing

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said power circuit section onto said heat radiation member through said opening from which said shape retention member is removed, with an adhesive being interposed between said power circuit section and said heat radiation member, thereby enhancing a close contact between said power circuit section and said heat radiation member.

Claim 9 (currently amended): A method for producing [a] said circuit assembly wherein [a] said power circuit section having [a] said power circuit is adhered to [a] said heat radiation member and [a] said synthetic resin casing body is mounted on said heat radiation member to protect said power circuit section from the outside, comprising the steps of: producing said power circuit section, said heat radiation member, and [a] said casing unit according to Claim 2, respectively; and adhering said power circuit section to said heat radiation member and adhering said casing unit to said heat radiation member; in the first step of producing said power circuit section, forming said casing unit including said shape retention member by filling a heated molten synthetic resin into a mold, and removing said shape retention member from said casing unit after cooling said casing unit and before finishing the second step of adhering; in the second step of adhering, pressing ~~said power circuit section onto said heat radiation member through said opening from~~ which said shape retention member is removed, with an adhesive being interposed between said power circuit section and said heat radiation member, thereby enhancing a close contact between said power circuit section and said heat radiation member.

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Claim 10 (currently amended): A method for producing [a] said circuit assembly wherein [a] power circuit section having [a] said power circuit is adhered to a heat radiation member and [a] said synthetic resin casing body is mounted on said heat radiation member to protect said power circuit section from the outside, comprising the steps of: producing said power circuit section, said heat radiation member, and [a] said casing unit according to Claim 3, respectively; and adhering said power circuit section to said heat radiation member and adhering said casing unit to said heat radiation member; in the first step of producing said power circuit section, forming said casing unit including said shape retention member by filling a heated molten synthetic resin into a mold, and removing said shape retention member from said casing unit after cooling said casing unit and before finishing the second step of adhering; in the second step of adhering, pressing said power circuit section onto said heat radiation member through said opening from which said shape retention member is removed, with an adhesive being interposed between said power circuit section and said heat radiation member, thereby enhancing a close contact between said power circuit section and said heat radiation member.

Claim 11 (currently amended): A method for producing [a] said circuit assembly according to Claim 8, wherein a liquid waterproof resin is poured through said opening into said casing body after finishing said second step of adhering, and said waterproof resin is solidified to form a waterproof layer for sealing said power circuit section.

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Allowable Subject Matter

3. The following is a statement of reasons for the indication of allowable subject matter: The primary reasons for the indication of the allowability of claims 1-11 are the inclusion therein, in combination as currently claimed, of the limitation of a casing unit comprising: a shape retention member disposed across said opening for interconnecting a peripheral edge of said opening to each other at a plurality of positions; said casing body and shape retention member being made of a synthetic resin integrally with each other.

The previously listed limitations are neither disclosed nor taught by the prior art of record, alone or in combination.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Other prior art cited

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Murakoshi et al, Liu, Sumidda et al, Anzai et al, Iwata, Depp et al, and Boyd disclose a casing similar to applicant's claimed invention.

Serial Number: 10/694756

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Contact information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dhiru Patel whose telephone number is 571-272-1983.

The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pairedirect.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll free).

Dhiru Patel
Primary Examiner
Group Art Unit 2831
July 7, 2004

Dhiru Patel
Primary Examiner
7/7/04.

Notice of References Cited	Application/Control No. 10/694,756		Applicant(s)/Patent Under Reexamination ONIZUKA ET AL.	
	Examiner DHIRU R PATEL		Art Unit 2831	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,583,353	06-2003	Murakoshi et al.	174/50
*	B	US-6,704,131	03-2004	Liu, Jwei Wien	359/290
*	C	US-6,677,521	01-2004	Sumida et al.	174/50
*	D	US-6,674,645	01-2004	Anzai et al.	361/752
*	E	US-6,600,658	07-2003	Iwata, Yoshifumi	361/752
*	F	US-6,570,088	05-2003	Depp et al.	174/50
*	G	US-6,350,949	02-2002	Boyd, Kenneth Stokes	174/50.5
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
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	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title, Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Sheet 1 of 1

Form PTO-1449 (REV. 8-83)		US Dept. of Commerce PATENT & TRADEMARK OFFICE		ATTY DOCKET NO. 117480		APPLICATION NO. 10/694,756	
INFORMATION DISCLOSURE STATEMENT (Use several sheets if necessary)				APPLICANT(S) Takahiro ONIZUKA et al.			
				FILING DATE October 29, 2003		GROUP 2831	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	
	LB	JP-A 11-204700 w/ abstract and translation	07-30-1999	Japan	—	—	
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)							
EXAMINER D.R. P.H.				DATE CONSIDERED 6/29/04.			
Examiner: Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

Date: April 16, 2004

Organization TC 2800 Bldg./Room Jeff

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